effort to more particularly define that which they regard as their invention. In addition, Applicants have introduced new Claims 26-30 to capture additional aspects of the invention, to which they are entitled.

Applicants will now turn to the substance of the Action.

Applicants' Response to
the Section 112 Rejections

Claims 1-25 stand rejected 35 U.S.C. 112, second paragraph, as allegedly being indefinite.

Claim 1 has been amended to delete the objected to clause, as suggested by the Examiner.

Claim 22 has also been objected to as indefinite. This claim has been amended as suggested by the Examiner.

Claim 12 has been objected to for use of trademarks. The claim has been amended to incorporate formulas, rather than the trademarks. See page 16, line 16 to page 18, line 7.

Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

Applicants' Response to
the Section 103 Rejections

Claims 1-9 and 11-15 have been rejected as allegedly being obvious from Schuft, U.S. Patent No. 6,248,204, in view of

Corley, U.S. Patent No. 5,137,990. The rejection is respectfully traversed.

Applicants review briefly for the Examiner certain of the salient features of the present invention, so as to further his understanding thereof.

Claim 1 is directed to two-part room-temperature curable compositions having high flash point and low odor. The compositions combine epoxy and acrylate components in one part and epoxy hardener and transition metal complex in the second part. Curing agents are provided for both the (meth)acrylate and epoxy components. The recited compositions demonstrate at least substantial maintenance of at least one physical property selected from the group consisting of fixture time, adhesion strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

The systems of the invention are referred to herein as "hybrid" systems since they provide for curing of both the epoxy and the (meth)acrylate components. Hybrid compositions differ from compositions employing single cure systems in that concurrent reactions of different molecules creates a much more complex system. The curing agents such as initiators and accelerators may potentially interfere with the other curing system, the transition states may be directed into side

reactions, viscosity effects during curing may affect the ability of one or the other cure system to achieve cure to vitrification, and generate other side reactions which may be detrimental to the physical properties sought from the composition. For these reasons there is not a direct interchangeability of components from single mechanism epoxy and (meth)acrylate compositions to hybrid systems. The relevant state-of-the-art thus is other hybrid systems.

Schuft describes two-part epoxy compositions which employ polyether amine hardeners. The (meth)acrylate compound disclosed by Schuft is the silane adhesion promoter methacryloxypropyltrimethoxysilane (col. 5, line 31). Such silane compounds are optionally employed in amounts up to 5 weight percent of the epoxy component. Schuft does not expressly provide a curing system for a (meth)acrylate silane adhesion promoter, and in particular provides no express suggestion to employ a transition metal catalyst compound. Accordingly, Schuft it is not a relevant document for citation, as it would not lead a skilled person to modify the composition of a hybrid system.

Corley describes heat curable compositions of polyepoxide, a poly(meth)acrylate ester of a polyol, an aromatic monomer, an unsaturated monomer, an aromatic amine, a free-radical initiator, and optionally an accelerator for the epoxy

curing reaction. This is a hybrid system. However, as a heat cured system, the compositions of the Corley patent are not seen to be pertinent to the claimed room-temperature curable compositions. In fact, the document as a whole, teaches away from the present invention.

The systems of Corley are uniquely tied to the use of aromatic unsaturated monomer and aromatic amine epoxy-hardener. In particular, part of the problem which Corley addresses is the poor properties obtained when polyether resins are used in combination with styrene blends. See Col. 1, lines 20-39. At lower temperatures, solubilities are typically lower and cure speeds are definitely slower. Consequently, the problems described by Corley would be expected to increase when formulating a room-temperature composition.

The skilled person would understand from Corley that the use of an aromatic amine in combination with a unsaturated aromatic monomer is essential to achieving suitable properties in the hybrid described. There is therefore nothing in Corley which is directed to room-temperature curing systems, and nothing which would lead to an interchange of (meth)acrylate compounds employed here with the silane adhesion promoters of Schuft.

Corley is also very specific to aromatic amine hardened systems. Nothing in Corley motivates the use of a

transition metal complex accelerator in the absence of the aromatic amine. Corley indicates that the function of the transition metal complex is as an accelerator of the epoxy cure which is an elevated temperature reaction. Schuft's epoxy system, on the other hand, includes a polyether amine hardener in the composition, a compound which Corley would clearly avoid. Further, with respect to Claims 26-30, the (meth)acrylate compounds recited for the first part component do not include Schuft's silane adhesion promoter. The systems are not analogous and are not properly combined.

Corley teaches away from using polyether resins, which is also strong evidence of the non-obviousness of the present invention, particularly so for Claims 11, 12 and 26-30, which recite polyether amine epoxy curing agents.

Corley's inclusion of a few transition metal complex catalysts in a long list of curing accelerators employable in heat-cured systems, absent hindsight, does not provide any motivation to employ such compositions in a room-temperature curing composition as recited in Claim 1.

Reconsideration and withdrawal of this rejection are thus respectfully requested.

Claim 10 has been further rejected as allegedly being obvious from Schuft, Corley and further in view of an alleged admission of prior art, and a requirement for information has

been imposed. The requirement for information is answered by the provision herewith of a copy of WO 00/40663, which shows the use of compounds as recited in Claim 10 as adhesion promoters for a (meth)acrylate adhesive system.

The rejection of Claim 10 is traversed, at least for the reasons applicable to the previous rejection. Further, the prior systems of WO 00/40663 are not hybrid systems and so do not provide a basis for reasonably predicting successful employment in a hybrid system as claimed. Again, two different cure chemistries are employed in the compositions of the invention, whereas only one is employed in those of the WO 00/40663 document, and not even the same one as Schuft. Consequently the invention defined Claim 10 is not obvious, and reconsideration and withdrawal of this rejection are also respectfully requested.

Claims 1-9 and 11-25 have also been rejected as allegedly being obvious from either McWhorter or Irving et al, each in view of Schuft and Corley.

Both McWhorter and Irving pertain to hybrid epoxy/(meth)acrylate systems. In McWhorter the curing agent is an aliphatic polyamine, optionally also with an aromatic amine, mercaptan or anhydride. Polyether amines are not suggested. The composition relies on Michael addition for cure of the (meth)acrylate and does not motivate the use of a transition

metal complex, as recited in Claim 1, much less a combination of transition metal complex and a polyether amine, as recited in Claims 11, 12 and 26-30.

Combining McWhorter with Schuft is improper at least for the reasons already given, i.e., that Schuft is not a hybrid system. Moreover, even the three way combination with Corley does not overcome the deficiencies of the earlier rejection. There is still nothing in any of these documents which suggests to employ a transition metal complex in a room temperature curing hybrid curing system.

In addition, there is certainly nothing which suggests both a transition metal complex and a polyether amine as recited in Claims 11, 12 and 26-30. Again, against this combination, Corley reinforces the non-obviousness of the invention defined by Claims 11, 12 and 26-30 by teaching away from the use of polyether resins in the Corley hybrid cure systems.

Irving et al also describes a hybrid curing system, but does not describe one which uses a second part composition employing an epoxy curative and a transition metal complex. Also, again with respect to Claims 11, 12 and 26-30, Irving et al does not describe a system which employs the polyether amine, alone or in combination with a transition metal complex. There is nothing in Irving which would overcome the prejudice against use of polyether amines provided by Corley. Consequently, it

likewise fails to overcome the deficiencies already noted for the Schuft/Corley rejection.

Reconsideration and withdrawal of the rejections of Claims 1-9 and 11-25 based on McWhorter or Irving et al, each in view of Schuft and Corley are thus respectfully requested.

Claim 10 has been still further rejected as allegedly being obvious from McWhorter or Irving et al, each in view of Schuft, Corley, and the alleged prior art admission, which is taken to be WO 00/40663. The rejection is traversed, at least for the reasons applicable to the previous rejection. Further, as previously noted, the systems of WO 00/40663 are not hybrid systems and so do not provide a basis for reasonably predicting successful employment in a hybrid system as claimed.

Again, two different cure chemistries are employed in the compositions of the invention, whereas only one is employed in WO 00/40663. Consequently the invention defined by Claim 10 is not obvious, and reconsideration and withdrawal of this rejection is therefore respectfully requested.

Claims 1-25 have been rejected as allegedly being obviousness from a double patenting standpoint over Schuft taken with Corley, as applied above. The rejection is traversed, and reconsideration and withdrawal thereof are respectfully requested, for all of the reasons given above.

As a final observation with respect to Claim 30, mono (meth)acrylates as recited in this claim are present only in the heat cured systems of Corley, and then only in combination with an unsaturated aromatic monomer. A room temperature curing hybrid system in which the (meth)acrylate component is restricted to mono-acrylate monomers, as exemplified in the present application, is clearly not obviously formulated on the basis of the cited documents even if all of the rejections in this case were proper.

None of the documents cited either individually or in any combination teach or suggest the invention as claimed. Moreover, none of the documents provide motivation to combine their respective teachings to reach the invention as presently claimed. Accordingly, the various combinations advanced in the Action are spurious. And even if the combinations were appropriate, which they are not, the combinations do not reach the invention as presently claimed.

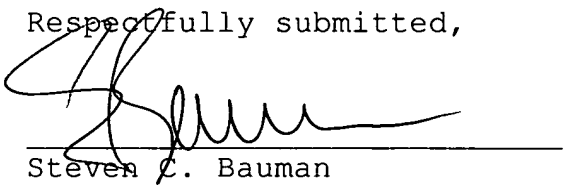
As such, reconsideration and withdrawal of all the Section 103(a) rejections are respectfully requested.

CONCLUSION

Applicants respectfully submit that in view of the above, the subject application is in condition for allowance.

Applicants' undersigned attorney may be reached by telephone at (860) 571-5001 or by facsimile at (860) 571-5028. All correspondence should be directed to the address given below.

Respectfully submitted,



Steven C. Bauman
Attorney for Applicants
Registration No. 33,832

HENKEL LOCTITE CORPORATION
Legal Department
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

Version of the Specification With Markings Showing Changes Made

Rewrite the paragraph at page 6, lines 31-35 to read as follows:

The epoxy resin of the first component of the composition includes an epoxy resin in an amount within the range of about 5 to about 85 weight percent, such as about 25 to about 55 weight percent, based on the total weight of the [epoxy resin] first component.

Rewrite the paragraph at page 23, lines 1-6 to read as follows:

Where applicable, the two components of the composition may be transferred in appropriate volume ratio to a double barrel syringe or cartridge having 2 parallel barrels made of non-reactive plastic. The syringe or cartridge is equipped with a mixing chamber disposed in a location intermediate [between] to the cartridges and the dispense nozzle.

Version of the Claims with Markings Showing Changes Made

1. A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

(i) an epoxy resin, and

(ii) (meth)acrylate component; and

(b) a second component, comprising:

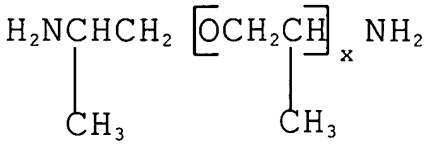
(i) an epoxy resin hardener, and

(ii) a catalyst comprising a transition metal complex,

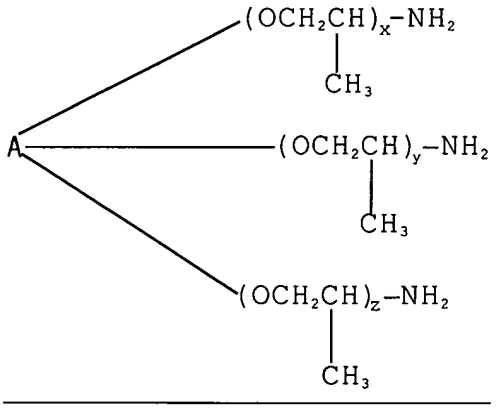
wherein [at least one of the first component or the second component] cured reaction products of the composition demonstrate at least substantial maintenance of at least one physical property selected from the group consisting of fixture time, adhesion strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

12. The composition according to Claim 1, wherein the epoxy resin hardener of the second component includes polyether amine-based hardeners selected from the group consisting of [JEFFAMINE D-230, JEFFAMINE D-400, JEFFAMINE D-2000, JEFFAMINE T-403, JEFFAMINE ED-600, JEFFAMINE ED-900, JEFFAMINE ED-2001,

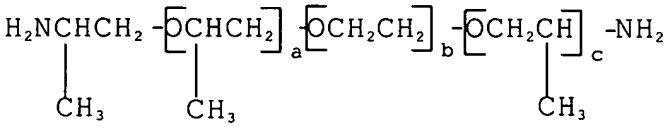
JEFFAMINE XTJ-504, JEFFAMINE XTJ-509, JEFFAMINE T-3000, JEFFAMINE T-5000, 4, 7, 10 TTD] compounds of the formula:



where x is from about 2.6 to about 33.1; compounds of the formula:



where A is a residue of glycerin or trimethylol propane, and x+y+z is from about 5 to about 85; compounds represented by the formula:



where a+c is about 2.5 and b is from about 2.5 to about 40.5; and combinations thereof.

22. (Amended) Reaction products [from the composition] composed of the cured composition according to Claim 1.